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SAN FRANCISCO BAY REGION
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OAKLAND, CA 94612February 16, 1993
File No. 1114.17(SIM)

Philip J. Armstrong, Project Officer
U.S. Environmental Protection Agency, Region IX
Hazardous Waste Division (H-8-1)
75 Hawthorne Street
San Francisco, CA 94105

Dear Mr. Armstrong:

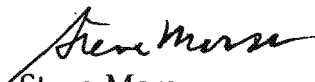
**Subject: Quarterly Progress Report for the South Bay MSCA
Fiscal Year 93 for the Quarter 1 October - 31 December 1993**

Attached are two copies of the Quarterly Progress Report. The report covers the tasks in the approved Workplan amendments within the grant amendment award of June 5, 1992.

While the current Workplan amends and carries the work through September 1993, the June 1992 award is only through September 1992 as discussed at our January 21 meeting. An additional grant award is expected early in the federal fiscal year (approximately second quarter FFY 93) to complete the workplan. By letter of February 9, I have transmitted to you a copy of the proposed changes for the remaining grant award for FFY 93.

As before, I would appreciate any constructive comments you may have to assure compliance of and/or improve the usefulness of the report. Please call me (510/286-0304) if you have any questions.

Sincerely,


Steve Morse
MSCA Program Manager

Attachment: Quarterly Progress Report (2)
cc: SRR, LPK, LKB, BHW, SAH, GW, JET, MAB
S. Malos [SWRCB/DCWP (Underground Tanks)]
J. Hanson, EPA (H-6-3)

QUARTERLY STATUS REPORT

October - December 1992

SOUTH BAY MULTI-SITE COOPERATIVE AGREEMENT (MSCA)

EPA GRANT NUMBER V-009403-02-9
(as of June 5, 1992)

State Water Resources Control Board

California Regional Water Quality Control Board
San Francisco Bay Region
South Bay Toxics Cleanup Division

February 11, 1993

QUARTERLY PROGRESS REPORT
SOUTH BAY MULTI-SITE COOPERATIVE AGREEMENT
October - December 1992

The goals of the MSCA for this phase are:

To accelerate cleanup of contaminated groundwater at Superfund sites in the South Bay.

To augment the RWQCB's existing programs to ensure that the EPA's requirements, as defined in the National Contingency Plan (NCP), are met for those NPL sites assigned to the RWQCB as lead agency.

* * *

The South Bay Multi-Site Cooperative Agreement (MSCA), Phase II, was awarded and accepted by the State Water Resources Control Board effective April 13, 1988. This progress report for this phase is submitted to satisfy the Special Conditions. This report covers the October - December 1992 quarter as amended in subsequent grant offers, the latest being awarded June 5, 1992 to extend the agreement to September 30, 1993 with partial awards of June 1992 and, most likely spring 1993.

The MSCA Grant provides funding for activities of the state (i.e. State Board and Regional Board) responsible for coordinating and enforcing groundwater cleanup programs at Federal Superfund sites in the South Bay. The estimated expenditures, staff years, and accomplishments are compared to the work plans of January 28, 1988, March 9, 1989, February 13, 1990, January 1991, and January 22, 1992 (with pending revisions and reductions per Regional Board letter request of February 9, 1993).

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QUARTERLY PROGRESS REPORT
SOUTH BAY MULTI-SITE COOPERATIVE AGREEMENT
October - December 1992

II - SPECIAL CONDITIONS

Besides the tasks in the MSCA's Workplan, some of the grant's Special Conditions require the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) to perform certain activities. The Revised Special Conditions responded to here are part of the grant offer of June 5, 1992.

An amended Workplan for 1992-1993 for \$2.35 million was submitted to and approved by the EPA with a partial award June 5, 1992.

Under the terms of the Special Conditions, the Board requested that EPA redirect funds between several of the sites to cover unanticipated costs not budgeted. EPA has agreed to the redirection and included the redirection in the 1992-1993 grant award. Because the award was later than anticipated, and additional agreed upon work was also needed (and not needed) at some sites, redirection will be needed again. (See Regional Board letter of February 9, 1993, on these proposed FFY 93 workplan/budget changes.) The remaining partial award by EPA is expected FFY second quarter for the remainder of the grant through September 1993. This concept was discussed and agreed to in principle at the RWQCB/EPA quarterly status meeting November 9, 1992 and again January 21, 1993.

Due to a change in State accounting to allocate all non-site specific charges monthly (to the appropriate NPL sites in proportion to staff activity), the grant workplan non-site specific tasks (A, B, and E.3.) and their accounting records can be misinterpreted. The important indication of budget and expenditures for this quarterly review is the *total for all sites*.

EPA continues to finalize the few remaining MSCA sites for initial demands for cost-recovery started in early March 1992. EPA has to date received significant and substantial payments. EPA and RP negotiations over costs continued throughout the quarter.

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III - SUMMARY AND STATUS OF MSCA TASKS AND BUDGETS

This Section provides a summary as well as details where necessary on the quarterly progress and status of the MSCA tasks in the Workplan of January 1992 and as approved via the June 1992 grant award.

To accelerate the cleanup at the South Bay Federal Superfund sites the EPA assigned the responsibility along with the necessary augmented funding to the State and Regional Boards to accomplish oversight and regulation of the South Bay Superfund sites under Federal and State law, regulations and EPA Guidelines.

In all instances the acute toxics threat and risk at the MSCA sites is now either under interim control (awaiting long-term solutions) due to aggressive earlier Board regulation and requirements for initial and interim investigations, removals, and remediation or the Board and EPA have adopted and the Responsible Parties are (or have) constructed and/or implemented the long-term remediation project to control chronic threats. The Regional Board's efforts are now focused primarily on the remaining sites requiring completion of any necessary investigations and development of cleanup alternatives (i.e. the RI/FS process) and a proposed cleanup plan (the RAP) for public review and comment (See Table, page III-5). After public review and comment, the Board will adopt the RAP in a Site Cleanup Order (i.e. CAO) as modified by public comment, staff recommendations and Board guidance. If EPA approves of the Board's actions and selects the same remedy (RAP), they will administratively adopt a Record of Decision (ROD). Close coordination with EPA is maintained during the process; there is no reason to believe that EPA would not choose the same remedy as the Board.

Significant Events and Activities During the Grant Quarter:

South Bay MSCA Superfund Site Cleanup Decisions (RI/FS/RAP): All the South Bay Superfund sites have accomplished significant amounts of work to meet Superfund final cleanup decision requirements. The tasks remaining are necessary to meet State and Federal Superfund (all of which the State requires as well) requirements to determine the best alternative considering protection of public health and the environment as well as the maintenance (i.e. high quality groundwater) and protection of the resource (i.e. water conservation and reclamation).

Board Actions:

October: Rescinded State Waste Discharge Requirements for Fairchild Camera, Intel and Raytheon

November: None

December: None

Other MSCA Events/Activities during the Quarter:

Quarterly Enforcement Meeting: Although EPA and the Board met frequently during the quarter, no joint quarterly meeting was held between DHS, EPA, and the Board covering the enforcement status of the South Bay toxics cleanup sites -- both Superfund and non-Superfund. This joint meeting was previously formalized in the updated South Bay Enforcement Agreement. At this time the primary area where the three agencies interface is the Stanford Industrial Park area in Palo Alto, Rhone-Poulenc in East Palo Alto where the DTSC was previously the lead agency, and at United Heckathorn and Liquid Gold sites in Richmond where the Board is a support agency.

South Bay Groundwater Task Force: Due to low attendance and interest, future meetings have been canceled unless a specific topic or site arises that warrants reconstitution of the task force. Contact with the usual participants of the Task Force is maintained through individual site-specific contacts.

Board staffing: During the quarter, the Board's staffing in support of the MSCA was satisfactory even with the transfer of the Information System Technician to another Board Division. Because of the Program Manager's attempt to reduce the amount of effort in the Site Management System, the transfer of the Information System Technician did not affect the Site Management System (the published SMS has not been updated since early 1992). It is expected to resume the SMS through the use of an annual update and followups via a computer Bulletin Board System in early spring 1993. The loss of the Division's Senior Engineering Geologist / Section Leader caused some impacts as the Division Chief attempted to cover her supervisory duties and responsibilities in her absence. Backfill with an experienced Senior Engineer/Section Leader was

MSCA Tasks Status (cont.)

accomplished early December. State budget shortfalls did not affect the MSCA staffing, but did affect purchasing timeliness.

1992-1993 MSCA Workplan: The Regional Board submitted the amended 1992-1993 MSCA Workplan in January 1992; the State Board accepted and applied for the amended grant in March 1992; and the EPA awarded the amended Grant in June 1992. The Workplan is effective through September 30, 1993.

EPA Cost-Recovery: In early March 1992, EPA began the process of cost-recovery for the MSCA sites. The demands are for combined costs of the Board (through June 30, 1991) and EPA (through July 31, 1991). By the end of March, several RPs had already paid, and most of the remaining billed sites have paid either in full or partially. A cost-recovery suit has been filed by EPA against Intel, Kim Camp III, CTS Printex, and ADN. Completion of the initial cost-recovery cycle is expected this spring and the beginning of a new annual cycle is expected to begin late spring. SWRCB is prepared to provide site accounting records when necessary.

Status and Funding of MSCA Tasks:

The overall status of the Grant tasks is satisfactory, especially with the new grant supplemental award received June 5, 1992. Some redirection of grant funds is now needed between sites due to work necessary (and not necessary) that was not anticipated in early 1992. The overall expenditures do not exceed the MSCA obligations. The status of the individual tasks (and site budgets) varies (see the individual tasks following for detailed descriptions):

A. Program Management: Normal activities continue with assuring the final adoption of RAPs at several sites -- Rhone-Poulenc (wetlands), Hewlett-Packard 640 & 1501, Hexcel, National Semi OU#2, etc. to assure that time schedules would be met. RD/RA and O&M continues at other sites.

B. Site Management System: The last published quarterly report for October - December 91 was distributed late January 1992. With the leave of absence of the Information System Technician from early April to September 1992, and transfer to another Board Division upon return, the Regional Board's latest approved workplan has rescoped the SMS to be less IST intensive and

still provide greater public access (via modem, fax, and limited paper copies). Expected startup of the revised SMS is early spring 1993. It now appears that paper copies will be necessary, at least of a limited nature on perhaps an annual basis, but that the updates will be maintained on the BBS.

D. Community Involvement: Up-to-date and continuing; see specific item. Work was also significant on an update of the 1989 EPA brochure on "Status of Superfund Groundwater Cleanup in the South Bay".

E2. NPL Site Oversight: Currently, we are able to keep up with the staff work load although some schedules have slipped and are still slipping (e.g. Rhone-Poulenc/Sandoz, HP 640 Page Mill and HP 1501 Page Mill, National Semiconductor OU#2). The typical scenario finds that as the cleanup tasks in the RI/FS workplan become solidified and finalized that details formerly unknown or unresolved take on an importance not previously appreciated (e.g. HP sites). Some unforeseen slippages in the current MSCA schedules have occurred and probably will occur again. State staff will do everything in their power to minimize slippage. Additionally, the utilization of Operable Units is being used (e.g. NSC/AMD Arques) where a firm decision can be made on a given unit *and* a final decision on the remainder of the site can not be made for a considerable time (e.g. one year or longer). A review of the site schedule (page III-5) indicates actual and probable slippage from the schedules updated for the most recent award and as changed since the last quarter's report. Details on the slippages are covered later by site, but generally they can still be categorized into four categories:

1. Upon review of the PRP submitted RI/FS and proposed RAP, the report and recommendations are inadequate and require significant administrative changes to meet EPA guidance documents; these comments come from both RWQCB and EPA staff [e.g. National Semiconductor/Advanced Micro Devices (Arques)].
2. Finishing up the RI/FS and RAP, "holes" are found in the RI/FS and RAP that must be covered with further field work and/or investigations (e.g. Rhone-Poulenc's risk assessment and both HP sites).

MSCA Tasks Status (cont.)

3. New information comes to light (usually in the field, "one last well...") that requires radical changes to the RI/FS and RAP with their ensuing delays (e.g. the HP Palo Alto sites at earlier stages).
4. Agency and public comment require significant amendment of the FS/RAP (e.g. Rhone-Poulenc).

An additional factor that may delay RODs, but probably not the state RAPs is activity by the State Department of Health Services in the preparation of Health Assessments (HA) under contract for the Agency for Toxic Substances and Disease Registry (ATSDR) as required by CERCLA/ SARA. To date, it is still not clear what the significant differences are between ATSDR/DHS' Health Assessments and the Board's BPHE and Risk Assessments or how they will be involved in RAP/ROD decision-making since the HA will not normally be available until after the Board adopts a RAP. To date, no ROD has been knowingly held up because of ATSDR's HA.

Mitigating these potential delays is the fact that the Board has required interim remediation, in almost all cases, the definition work has been mostly completed (exception, but nearing completion -- HP's 640 and 1501 Page Mill sites in Palo Alto; and NSC's OU#2), and the Board can implement enforcement quickly where needed and necessary. Staff is aware of slippages and is working to assure completion to the amended schedule as well as preventing further slippage. At this time no enforcement is planned.

Internal over expenditures by site are primarily caused by several administrative problems:

- Within the tasks, CALSTARS reports utilized currently do not provide an appropriate breakout between indirect costs and contract costs.
- Within the task by site, over expenditures are caused by the implementation of specific site budgets where none existed before and unanticipated work or difficulty of work that could not be foreseen by the original budget. With the new award of June 1992, redirection corrected this problem (by task) as it stood then, but unanticipated site work has caused some overexpenditures on some of the sites. For tracking purposes, the

overall *total* task and grant budget must be utilized.

- The grant award was late due to delays in the submission and award; earlier over expenditures are now covered by the July 1990 and May 1991 award budgets and were partially reconciled with the June 1992 grant award budget redirections. No additional overall funding is requested at this time, but additional redirections will be necessary with the remaining partial award.
- To facilitate cost-recovery, all non-site specific work (Tasks A, B, etc.) is allocated monthly to the MSCA sites in proportion to the site activity for the month. Again, the real test of grant budget and spending at this time is to compare the *total* "bottom line" of the entire grant. State staff are attempting to provide a better picture of individual site budgets in future quarterly reports.

Under expenditures are usually caused by changes in work, over estimation of work (usually problems anticipated do not appear), delays in site cleanup (staff work not able to be performed due to project delays and awaiting reports), and changing requirements (dropping significant assistance at the MEW sites).

E3. EPA Coordination: This task has been eliminated in the January 1992 amended workplan with all such "EPA coordination" activities being charged to the site that the staff is assigned to regulate or support.

The table on page III-6 is a summary of the grant budget status of all the sites and shows the approved budget and total estimated expenditures for staffing, expenses and contracts during the quarter and the life of the Cooperative Agreement (Phase II) since initial award April 13, 1988, including the July 90, May 91, and June 92 awards. The Regional Board Program Manager has requested a redirection between sites to cover overages (see February 9, 1993, letter); no overall increase in total budget is foreseen due to these charges at this time (in fact a decrease in budget is proposed for FFY 93).

MSCA Tasks Status (cont.)

Forecasted MSCA Tasks and Activities Next 3 - 6 Months:

--Significant activity is expected as shown in the MSCA Schedule (see page III-5) to complete RI/FS (HP 640 and 1501, Hexcel), and proposed RAP (Applied Materials Soils OU), and finalize Rhone-Poulenc's Wetlands RI/FS Investigation) and some informal Public Meetings near sites to receive comment on various phases of projects.

--Maintain time schedules in Community Relations Plans in coordination with overall schedule (especially Hexcel and Hewlett-Packard).

--Amend and extend where necessary MSCA contracts and Interagency Agreement with DHS (Data Validation).

SOUTH BAY MSCA GRANT SCHEDULE REQUIREMENTS
(updated 2/15/93 by RWQCB; changes since last report shown w/#)

Site	RI/FS and RAP Completed and Available for Public Comment		Final RAP/ROD Adopted	
	mo/yr	FFY/Q	mo/yr	FFY/Q
1. Advanced Micro Devices - Arques	RI/FS adopted; ROD signed; RA and O&M underway			
2. Advanced Micro Devices - Bldg 901/902	RI/FS adopted; ROD signed; RA and O&M underway			
3. Advanced Micro Devices 915	RI/FS adopted; ROD signed; RA and O&M underway			
4. Applied Materials				
Groundwater Operable Unit	RI/FS, RAP adopted; ROD (groundwater) signed; RA and O&M underway			
Soils Operable Unit	3/93#	93/2	5/93#	93/3
5. CTS Printex	RI/FS and RAP adopted; ROD signed; RA and O&M underway			
6. Fairchild, San Jose	RI/FS and RAP adopted; ROD signed; RA and O&M underway			
7. Hewlett Packard, 1501 Page Mill	6/93#	93/3#	10/93#	94/1
8. Hewlett Packard, 640 Page Mill	10/93#	94/1#	3/94#	94/2#
9. Hexcel	9/92?	92/4?	11/92?	93/1?
10. Intel Magnetics / Micro Storage	RI/FS adopted; ROD signed; RA and O&M underway			
11. Intel Santa Clara III	RI/FS & RAP adopted; ROD signed; RA and O&M underway			
12. International Business Machines	RI/FS and RAP adopted; ROD signed; RA and O&M underway			
13. Intersil / Siemens	RI/FS and RAP adopted; ROD signed; RA and O&M underway			
14. National Semiconductor				
Operable Unit 1	RI/FS adopted; ROD signed; RA and O&M underway			
Operable Unit 2	TBD (late 93)#	TBD (late 93)#	TBD (late 93)#	TBD (late 93)#
15. Rhone Poulenc/Sandoz Crop Prot Corp				
Uplands Operable Unit	RI/FS adopted; ROD signed; RA completed 11/92			
Wetlands Operable Unit	TBD(1/94?)#	TBD (94/2?)#	TBD (4/94?)#	TBD (94/3?)#
16. Signetics	RI/FS adopted; ROD signed; RA and O&M underway			
17. Solvent Services	RI/FS & RAP adopted; ROD signed; RA and O&M underway			
18. Spectra Physics	RI/FS adopted; ROD signed; RA and O&M underway			
19. Synertek 1	RI/FS & RAP adopted; ROD signed; RA and O&M underway			
20. Teledyne	RI/FS adopted; ROD signed; RA and O&M underway			
21. TRW/FEI Microwave	RI/FS adopted; ROD signed; RA and O&M underway			
22. Van Waters & Rogers	RI/FS and RAP adopted; ROD signed; RA and O&M underway			

TBD=To Be Determined

Notes: Federal lead sites, for which RWQCB receives funding under MSCA for its support activities, have identical milestones, but are not included here since the RWQCB is not responsible for meeting those time schedules. The State-required RAPs are not adopted until the NBAR is completed; does not affect the Federal Superfund process, only state required Non-Binding Allocation of Responsibility (i.e. NBAR).

MSCA Expenditures vs. Latest Award (June 1992) for all FFYs
Through 12/31/92

MSCA Phase II Project #	EPA Account Number	Site Name	Total Authorized \$	Cumulative Expenditures \$	Under (Over) Budget / \$
MSCA02-00			0	0	0
MSCA02-01			0	316	(316)
MSCA02-02	K382/KN82	AMD (901/902)	170,473	131,743	38,730
MSCA02-03	K3H1/KNH1	AMD (915)	143,129	96,783	46,346
MSCA02-04	KN83	Applied Material	245,248	259,634	(14,386)
MSCA02-05	K362/KN62	Fairchild Semiconductor	46,543	7,680	38,863
MSCA02-06	K384	Fairchild Camera	48,408	61,847	(13,439)
MSCA02-07	K385	Hewlett Packard 1501	271,777	194,424	77,353
MSCA02-08	K3H9	Hewlett Packard 640	407,106	333,089	74,017
MSCA02-09	K340/KN40	IBM	82,088	50,696	31,392
MSCA02-10	K388	Intel Corp - MEW	38,408	5,962	32,446
MSCA02-11	K388/KN88	Intel Corp - SC III	129,482	120,378	9,104
MSCA02-12	K387/KN87	Intel Magnetics/MicroStorage	181,929	152,974	28,955
MSCA02-13/20	K3J2/KNJ2	Intersil	129,376	110,765	18,610
MSCA02-14	KN89	Lorentz Barrel & Drum	47,178	54,808	(7,630)
MSCA02-15	K3C7		4,620	0	4,620
MSCA02-16	KN90	AMD (Arques/Mono Mem)	217,117	227,070	(9,953)
MSCA02-17	KN91	National Semiconductor	300,623	317,513	(16,890)
MSCA02-18	K3H5/KNH5	CTS Printex	161,907	145,423	16,484
MSCA02-19	K393	Raytheon - MEW	28,408	5,700	22,708
MSCA02-20	K3J2	Siemens	118,346	94,372	23,973
MSCA02-21	K394/KN94	Signetics	138,325	120,981	17,344
MSCA02-22	K3K1/KNK1	Spectra - Physics	176,884	128,419	48,465
MSCA02-23	K3K3/KNK3	Synertek (Bldg #1)	138,075	104,333	33,742
MSCA02-24	K3K4/KNK4	TRW Microwave	178,036	128,536	49,500
MSCA02-25	K395/KN95	Teledyne	172,482	129,312	43,170
MSCA02-26			0	0	0
MSCA02-27	K396/KN96	Van Waters & Rogers	216,968	174,238	42,730
MSCA02-28	K397/KN97	Westinghouse Electric	47,178	33,112	14,066
MSCA02-29	KN98	Rhone Poulenc/Sandoz	431,680	353,982	77,698
MSCA02-31	K3F6/KNF6	Jasco	43,896	9,023	34,873
MSCA02-32	K3J9/KNJ9	Solvent Service	175,184	129,814	45,370
MSCA02-33	KNJ1	Hexcel Composite	277,412	200,532	76,880
MSCA02-34	K3R3	United Heckathorn	27,997	15,906	12,091
MSCA02-36	KN47	Liquid Gold	8,078	22,981	(14,903)
MSCA02-36	KNM6		206,989	0	206,989
Sub - Total			5,011,349	3,922,344	1,089,005
Site 64			1,213,951		
			6,225,300		
IPA			67,358		
TOTAL			\$6,292,658		

Notes:

Estimates only for this report

CALSTARS documents are official.

February 15, 1993: October - December 92 Qtr Rpt

PROGRAM ELEMENT A: PROGRAM MANAGEMENT

The RWQCB is responsible for continued coordination and implementation of the South Bay MSCA Program. These activities include, but are not limited to, the following:

- *Maintaining the direction, scope, and quality of the South Bay Program*
- *Planning and oversight of the overall program schedule and budget*
- *Interagency coordination*
- *Staffing requirements and recruitment*
- *Supervision of Community Involvement*
- *Program analysis and development*
- *Supervision of procurement*

Product

The products for Task A are the successful completion of all the tasks identified and funded under this phase of the South Bay MSCA. As stated in previous quarterly status reports, an adjustment of funds and PYs from contract dollars in Task E2. to this task (and to Task E3. -- EPA Coordination) may be necessary since charging all of these consultant procurement activities to a specific site is difficult to determine for this work at this time; a specific distribution among all the NPL sites will be made at a later date as the services of the consultants are utilized.

Additionally, most site-file cost-recovery work will be initially charged against this task with allocation among the sites made later depending upon the actual work necessary to establish and maintain individual site-specific cost files.

Within the overall program management, the most significant program management activities during this period involved the coordination / management necessary to meet MSCA time schedules, especially those for Rhone-Poulenc and Hewlett-Packard(s); the support as necessary for EPA's cost-recovery; and day to day supervision and management of ongoing MSCA tasks at ROD adopted sites (i.e. ongoing RD/RA and O&M). Significant activity is still expected over the next three months in supervising and implementing the SMS BBS.

State Budgeted Activities

Task A involves supervising and implementing specific tasks (i.e. contracts) included in the MSCA. There is no existing state-funded budget provided for this activity. All Task A funding is MSCA funded by site.

Costs

The expenditures for the quarter as well as the grant period through 31 December 1992 are combined with the other tasks and included in the Program Budget Table on page 6.

PROGRAM ELEMENT B: SITE MANAGEMENT SYSTEM

Task Description

Under the earlier and current MSCA agreements the RWQCB implemented a computerized system to track RI (site remedial investigation), FS (feasibility studies / alternatives evaluation), and the implementation of remedial action activities for use of the RWQCB, CALEPA-DTSC and EPA management personnel for use in site enforcement and task tracking.

Additionally, as part of the community involvement program the SMS is currently distributed to 15 municipal agency representatives, 9 libraries, 7 state and federal agency representatives, 2 environmental groups and a manufacturers group, as well as sold (for reproduction costs) to those desiring it (primarily consultants).

Products

No quarterly report was produced this quarter because of the revisions approved in the January 1992 workplan. The Board is now changing the SMS, at least in its present form. The 1992-93 workplan supports a significantly reduced SMS effort, at least for the "paper" portion. Regional Board will implement this "new" SMS in early spring 1993 with computer purchases which arrived in early December.

State Budgeted Activities

There is no existing State-funded budget or activities for the Site Management System.

Cost

Expenditures for Task B are included in the Program Costs Table on page 6.

PROGRAM ELEMENT D: COMMUNITY INVOLVEMENT

Task Description and Objectives

The main objectives of community involvement activities performed under the MSCA are:

Provide the general public with information on ground water systems, water supply sources, water quality, hazardous waste regulatory processes, and scope, progress and findings of remedial response activities.

Provide sufficient background information about technical and environmental issues to help the public understand and assess remedial actions.

Provide information, especially technical findings, in a form understandable to the general public.

Provide elected officials and the media with timely detailed information at key points throughout program activities.

Use the media as a major means of disseminating information to the general public.

Establish a two-way information exchange with environmental, public interest, and other concerned groups throughout the remedial response program.

Provide the means for all interested individuals to express concerns and make inquiries throughout project activities. (the opportunity for two-way communication is particularly important because of the length and complexity of the project).

Use the Groundwater Task Force, for overall coordination and review of community involvement efforts.

Create an interagency community involvement team to further coordinate the flow of information from agencies to the public.

Monitor public concerns and information needs

Modify the community involvement plan(s) to respond to changes in community attitudes and needs.

Community involvement activities conducted under the MSCA function independently, but coordinated with, EPA's area wide community involvement strategy as well as DHS's site community involvement programs. Under this approach, EPA assumes the lead role in coordinating area-wide community involvement activities in the South Bay. Specifically, the RWQCB will be responsible for providing information and directing community involvement activities for RWQCB-lead sites.

Products

The following activities were completed during the Quarter, primarily utilizing IPA staffing with student assistance:

1. Community relations staff and the NSC project manager attended a regular meeting of the Lakewood Village Neighborhood Association in Sunnyvale. A short presentation was made, and a handout distributed covering recent activities at the NSC/AMD Arques site.
2. Fact sheets covering recent actions at the Hewlett-Packard sites at 640 Page Mill Road, and 1501 Page Mill Road were distributed in mid-October, 1992.
3. Community relations staff and the HP site project manager participated in a community meeting held by the DTSC at Hoover School in Palo Alto on October 22, 1992.
4. Community relations staff met with staff of the Sunnyvale Public Safety Department to review the documents which are maintained in the Sunnyvale Library. Some follow up

Task D - Community Involvement (cont.)

with the city will be required after the first of the year.

5. Community relations staff met with personnel from the San Jose Main Library and the Santa Teresa Branch to go over the documents from the IBM and Fairchild sites. A decision was made to move the bulk of the documents to the San Jose Library because of lack of space at the Santa Teresa Branch.
6. Monthly meetings continue to be held with members of the Barron Park Association Foundation, Hewlett-Packard, Varian, and the RWQCB Project Manager regarding actions at the HP sites in Palo Alto.
7. Contact with the Peter Coutts Homeowners Association at Stanford was reestablished (re: HP 1501), and information mailed to the new contact person.
8. Previously published Fact Sheets on the various sites continue to be mailed to persons who call or write requesting information. Many of the requests are from persons buying or selling property, real estate sales persons, and insurance company representatives.
9. A draft fact sheet and update on the Intersil/Siemens site in Cupertino was prepared and sent for comment to the companies, and the City of Santa Clara.
10. Two meetings were held with Darrel Oliver of the SWRCB's Water Rights Division's Graphic Arts group to discuss graphic design for a report on the South Bay MSCA Superfund sites.

Future Activities

Future activities are currently scheduled to meet the MSCA Special Conditions time line (as revised) requirements. Although IPS staffing is reduced from a year ago, current IPA staffing better matches the forecasted Community Involvement needs. Backup as needed will be provided by Board staff and this may require changing some contract funds to personal services funds at a later date.

Costs

Work on this MSCA task is primarily by contract IPAs with very limited state employee participation. This task accommodates the budget necessary for site-specific NPL Community Involvement programs above and beyond technical (i. e. engineer/geologist) assistance which is already budgeted within the NPL Site Oversight task. See the Table on page III-6 for overall grant budget status that includes Community Involvement costs by site.

PROGRAM ELEMENT E: TIER I ACTIVITIES

Tier I activities are those activities that occur at specific sites in the South Bay.

TASK E1.* IDENTIFICATION OF NEW
SITES

TASK E2. RWQCB OVERSIGHT OF
NPL PRP ACTIVITIES

TASK E1a.* SCREENING OF NEW SITES
IN ORDER TO CONDUCT
PAs ON MOST SENSITIVE
SITES

TASK E1b.* OVERSIGHT OF PRP SI

*Note: These tasks were not requested for funding in this Phase; they may be considered at a later time if conditions change.

TASK E2. RWQCB OVERSIGHT OF NPL PRP ACTIVITIES

Regional Board activities in this task cover the RI/FS oversight and/or regulation underway at the 31 South Bay MSCA Superfund sites (32 companies/agencies either final and proposed including Hexcel in the Livermore Valley and Liquid Gold and United Heckathorn in Richmond) for which the Board as a regulatory agency has either the current lead (22) or the supporting agency role (9). The current Agency-Lead and NPL Status as of this report are covered below.

EPA Lead Superfund Sites:

- *1. Fairchild Semiconductor Corp.,
464 Ellis St., Mountain View
- *2. Intel Corp., 365 E. Middlefield Rd.,
Mountain View
3. Jasco Chemical Company, 1710 Villa St.,
Mountain View
4. Lorentz Barrel and Drum, 1515 S. 10th St.,
San Jose
5. Moffett Naval Air Station, Sunnyvale
- *6. Raytheon Company, 350 Ellis St., Mountain
View
7. United Heckathorn, Richmond
8. Westinghouse Electric Corporation, 401 E.
Hendy Ave., Sunnyvale

RWQCB Lead Superfund Sites:

- *1. Advanced Micro Devices, 901 Thompson Pl,
Bldg.901, Sunnyvale
2. Advanced Micro Devices, Bldg. 915., 915
Deguigne Dr., Sunnyvale
- *3. AMD-Arques, (formerly Monolithic
Memories, Inc.), 1165 East Arques Ave.,
Sunnyvale
4. Applied Materials, 3050 Bowers Avenue,
Santa Clara
5. CTS Printex, 1905-1931 Plymouth St.,
Mountain View
6. Fairchild Camera and Instrument Corp.,
Bernal Road, San Jose
7. Hewlett-Packard, 640 Page Mill Rd., Palo
Alto
8. Hewlett-Packard, 1501 Page Mill Rd., Palo
Alto
9. Hexcel, Livermore
10. Intel Facility III, 2880 Northwestern
Parkway, Santa Clara
11. Intel Magnetics/MicroStorage, 3000
Oakmead Village Dr., Santa Clara
12. International Business Machines, Cottle
Road, San Jose
- *13. Intersil, Inc., and Siemens Components, Inc.,
Cupertino

- *14. National Semiconductor, 2900
Semiconductor Dr., Santa Clara
15. Rhone-Poulenc/Sandoz, 1990 Bay Road,
East Palo Alto
- *16. Signetics, 811 E. Arques, Sunnyvale
17. Solvent Services, 1022 Berreyessa Road, San
Jose
- *18. Spectra-Physics, Inc., 1250 West Middlefield
Road, Mountain View
19. Synertek #1, Santa Clara
- *20. Teledyne Semiconductor, 1300 Terra Bella
Ave., Mountain View
- *21. TRW Inc., 825 Stewart Pl., Sunnyvale
22. Van Waters & Rogers, Inc., 2256 Junction
Ave., San Jose

* above sites will be treated as part of a
combined site, at least for off-site work.

Cal/EPA-DTSC Lead Superfund Sites:

1. Liquid Gold, Richmond

EPA NPL Modifications (RCRA "drop" sites):

EPA's proposed rule-making in June 1988, (NPL Update #7) recommended that 6 NPL sites be deleted from the NPL since they are RCRA sites. Two other RCRA sites were proposed to be retained on the NPL. RWQCB officially commented to EPA-HQ on this proposal to delete high-priority RCRA sites by questioning the timeliness of the RCRA regulation update, future MSCA funding for these CERCLA/RCRA sites, and the lack of Technical Assistance Grants to citizen groups for RCRA (only) sites. EPA-IX has stated that the RCRA sites (proposed deleted and those remaining) will be treated as NPL sites to assure attention to cleanup appropriate to their NCP HRS scoring.

On October 4, 1989, EPA announced its final rule on the dropping of some of the NPL sites that are also RCRA sites. Under this rule, the following sites have been dropped from the NPL:

Hewlett-Packard, 1501 Page Mill Road
IBM, San Jose
Rhone Poulenc/Sandoz, East Palo Alto
Signetics, Sunnyvale
Van Waters and Rogers, San Jose.

EPA and the Board, per policy, continue to treat the RCRA "drop" sites the same as NPL sites in terms of requirements, tasks, and cleanup.

Products during Reporting Period:

Regional Board actions / Orders affecting the South Bay MSCA:

October: Rescinded state Waste Discharge Requirements for Fairchild Camera, Intel, and Raytheon

November: None

December: None

South Bay MSCA Superfund Site Cleanup Decisions (Remedial Investigations/Feasibility Studies/Remedial Action Plan): All the South Bay Superfund sites have performed significant amounts of work to meet Superfund final cleanup decision requirements. The tasks remaining are necessary to meet State and Federal Superfund (almost all of which the State requires as well) requirements to determine the best alternative cleanup plan considering protection of public health and the environment as well as the maintenance (i.e. high quality groundwater) and protection of the resource (i.e. water conservation and reclamation).

Board staff conducted the following tasks as detailed in the EPA OSWER Memorandum dated October 1, 1986, entitled, "CERCLA Funding of Oversight of Potentially Responsible Parties by States at National Priority List Sites."

Review Tasks (all sites):

- Reviewed and commented on scope of work and work plans (all work plans requested and approved as of August 1990; updating due to operable units still may be necessary)
- Reviewed and commented on updates to Safety Plans
- Reviewed and Commented on drafts of portions of RI reports (all)
- Reviewed/discussed FS objectives
- Completed PRP reports (all)
- Organized and participated in technical meetings on the RI/FS with PRPs, PRP contractors, and/or EPA. (all)
- Provided Technical Support to the Community Relations Task for:
 - Briefing of local and state officials
 - Prepared fact sheets and press releases

Field Related Tasks:

- On-site presence/inspection as necessary (all)

In addition, at RWQCB lead sites the following tasks were in progress by RWQCB staff or contracted by the RWQCB:

- Data Validation (all by IAG with DHS)
- Public Health Baseline Evaluation
 - (all work other than by PRP by contract award to ICF/Clement for both BPHE, BPHE review, and RI/FS review)
- Maintenance of the Administrative Record
 - (primary use of PRPs for initial preparation)
- Continue Implementation of Cost Recovery (all)

For those sites where the RWQCB is the Support Agency, staff provided support in the tasks described above to the extent necessary but not to exceed the staffing levels previously approved (exceptions are noted in the Board's letter of February 9, 1993, requesting budget redirections and reductions for FFY 93 award). Sites affected: MEW, Lorentz, United Heckathorn, Westinghouse, JASCO, Liquid Gold.

For those sites under Regional Board lead, the IBM, Fairchild San Jose, Applied Materials (groundwater Operable Unit), Intel SCIII, Intersil/Siemens, Solvent Services, AMD 901/902, AMD 915, AMD Arques, CTS Printex, National Semiconductor OU#1, Microstorage/Intel Magnetics, Signetics, Rhone-Poulenc/Sandoz (Uplands OU), TRW/FEI Microwave, Teledyne, Spectra-Physics, Synertek #1, and Van Waters & Rogers, sites have completed the RI/FS and RAP and a ROD has been signed in this MSCA grant phase (See Table, Page III-5).

Costs and Budgets: Even with the addition of the June 1992 grant award and the budget redirection among sites, some site over- and under- expenditures are occurring. While no new grant funds will be required, proposed redirection among sites will be necessary as a revision to the proposed second partial award in spring 1993.

The following is a description of the MSCA funded staff work and the current status at each of the MSCA Superfund sites.

REGIONAL BOARD LEAD SUPERFUND SITES:

ADVANCED MICRO DEVICES 901-902,
SIGNETICS, TRW (FEI) MICROWAVE
(THE COMPANIES)

ACTIVITIES: OCTOBER THROUGH
DECEMBER 1992

Field activities were completed for quarterly monitoring of all four operable units in early October; results will be summarized for each operable unit, as available, below. Operation of extraction and treatment systems for three onsite operable units continued throughout the quarter, with minimal interruption. Pipe leaks, detected by observation of fluid in the secondary containment, resulted in the offsite extraction system being shutdown two times during the quarter for a total of about ten days.

A complete failure of the piping that resulted in untreated water being released at the surface also occurred. This failure resulted in the system being completely shut down for three days and partially shut down for an additional five days. As part of the repairs, the piping was modified to allow operation of parts of the extraction system, while operation of other parts of the system were operated.

The TRW treatment system was shut down for repairs during most of November. The system was tested following start-up and found to be in compliance, however, it was found to be out of compliance based on the December compliance sample. The extraction and treatment systems were shut down in January, after the confirmation sample was also found to be out of compliance. The system was restarted in late January after the air-stripper blower was repaired. The confirmation sample was found to be in compliance following the repairs and prior to start-up. The regular NPDES sample is scheduled for early February.

The remaining systems were in compliance with respective NPDES permit requirements, with the exception of possible violations of effluent limits for inorganics at the AMD 901/902 operable unit.

AMD OPERABLE UNIT

The ground water monitor report for the AMD operable unit was submitted in September 1992. No significant trend in ground water elevations was noted for the shallow water-bearing zones for the third quarter as compared to the previous quarter. The six-well extraction system pumped an estimated 22 gpm during the second quarter of 1992. As expected, the majority of this water was extracted from the B1 and B2 water-bearing zones. Based on the low water levels in the A aquifer, staff has continued discussions with AMD regarding the possibility of beginning vapor extraction in this zone. Several A-zone wells indicated increases in concentration of TCE and 1,2-DCE. However, the significance of these changes is unclear since these wells have been sampled infrequently (not since 1988 in several cases) as a result of low water levels. Increased concentrations of TCE were also noted in samples from the B1 zone. The discharger is evaluating whether these increased contaminant concentrations may be a result of the subsurface disturbance caused by excavation or as a result of higher water levels in the previous two quarters. Samples from selected wells were analyzed for inorganics. Chromium was above applicable drinking water standards in a single well.

A summary of contaminant removal and extraction system operation through the second quarter was included in the report for the third quarter 1992. Corrections have been included to previous contaminant removal estimates. Based on average contaminant concentrations, the system removed about 46 pounds of VOCs during the first quarter and 25 pounds of VOCs during the second quarter. All remedial actions at the site, including two soil excavations and removals, have resulted in the estimated removal of 404 pounds of VOCs since 1984. The high removal rate for the first quarter is the result of an increase in the concentration of 1,1-DCE in the influent water to the treatment system.

The ground water system extracted and treated 2,647,100 gallons of water during the second quarter of 1992. As noted above, the treatment system was in violation of the effluent limit for mercury in the initial sample for July. The

Task E2 - Site Oversight (cont.)

effluent was resampled and was found to be in compliance. As part of the NPDES permit requirement, the discharger was required to submit a study of "background" concentrations of inorganics in the site ground water. The intent of this report was to aid in the consideration of alternative effluent limitations for inorganics in case the background exceeds the limits required by the Board. This report was submitted in September and is being reviewed by Board staff.

Documentation of soil removal and disposal for the AMD 901/902 facility was submitted in late September 1992 and is currently being reviewed by Board staff. The discharger also submitted a proposal for a revised sampling and analysis plan in September. The revision is based, in part, on the completion of the soil excavation and removal. Board staff is reviewing the revised plan.

Final deed restriction language for this operable unit was submitted by AMD and approved in July. However, since AMD is not the property owner and since it is unclear if the property at 902 Thompson Place was specifically included in the National Priority List nomination, additional time was provided to the actual property owners. The purpose of this time is to allow the property owners to research the impact of the deed restriction and the NPL status of the property at 902 Thompson Place.

SIGNETICS OPERABLE UNIT

The progress and monitoring report for the second quarter at the Signetics operable unit was submitted in July 1992. Field activities for the third quarter ground water monitoring report were completed in early July 1992. A meeting was held with Signetics in early September to discuss progress of remediation and completion of modifications of the onsite remedial systems. The final deed restriction language was approved in August, and a deed restriction was recorded in September. Modifications to the extraction system were completed in September and operation and testing began in late September. This implementation included the installation of one more B-zone monitor well than originally proposed. This well was added based on the logs of other wells, which indicated the presence of a separate B1 sand. This well will be used to monitor the progress of remediation in this zone and can be converted to an extraction well if necessary.

The extraction system removed more than 10,000,000 gallons of water during the second quarter of 1992. The average extraction rate for the second quarter was 89 gallons per minute. The majority of the water extracted is attributable to the B-zone extraction wells and the 440 Wolfe building sump. However, the majority of contaminant removal is attributable to the B-zone extraction wells since contaminant concentration is lower in the water captured by the building sump. The treatment system was in compliance with NPDES requirements. This resulted in an estimated removal of 259 pounds of TCE during the second quarter. The ground water extraction systems have removed more than 14,000 pounds of TCE since 1987. The soil vapor extraction system removed 17 pounds of VOCs during the second quarter of 1992. The vapor extraction system has removed a cumulative 591 pounds since its inception in 1988.

No notable changes in contaminant concentration trends were recorded, though several wells in the area of highest TCE concentration were lower than typical in the second quarter sampling. In addition to analysis for VOCs, 24 wells were analyzed for priority pollutant metals. Selenium was detected above the applicable drinking water standards in several wells, including two "background" wells.

TRW OPERABLE UNIT

Field activities for the third quarter ground water monitoring report were completed in July 1992. The progress and monitoring report for the second quarter at the TRW operable unit was submitted in July 1992. The treatment system operated throughout the third quarter with minimal down-time. The revised sample and analysis plan was approved by Board staff in July 1992. Final deed restriction language was approved in July and a deed restriction was recorded in August.

Anomalously high water levels in some A-zone wells were the result of a leaking sanitary sewer line. This accounted for increased rates of ground water extraction in several A-zone extraction wells during the second quarter. No significant changes in contaminant concentration or distribution were reported for the second quarter. The average extraction rate for the seven extraction points was 18 gallons per minute during the second quarter for a total of 2,936,232

gallons. Based on average contaminant concentrations at the treatment system influent inlet this results in an average removal of 98 pounds of VOCs. The cumulative VOC removal since 1985 is estimated to be over 2000 pounds of VOCs through the second quarter of 1992.

OFFSITE OPERABLE UNIT

Field activities for the third quarter ground water monitoring report were completed in July 1992. The progress and monitoring report for the second quarter for the Offsite operable unit was submitted in July 1992. Soil flux sampling was completed in June and the report was submitted in September. A report on the installation of additional wells in the area north of Highway 101 was delayed until October 1992. A letter report documenting the completion of six additional extraction wells in the vicinity of Duane Avenue and the piping to move the water to the treatment system was submitted in September.

The area of the contaminant plume within the 1,000 µg/l isopleth continued to decrease, though no significant change in concentration was noted for analytical results from the second quarter sampling. The new ground water monitor wells north of Highway 101 were sampled as part of the scheduled sampling event in July and again in August. The results confirm the presence of TCE in the B1 zone, but at concentrations lower than indicated by the Hydropunch sampling. Based on this sampling, TCE occurrence in the B2 zone is either much lower than indicated by Hydropunch sampling or absent.

The extraction and treatment system required significant maintenance during the second quarter and several extraction wells were out of operation at various times. These wells were repaired during the third quarter, and the treatment system operated without interruption during the third quarter. The extraction system removed almost 14,000,000 gallons of water during the second quarter. The estimated removal of VOCs for the second quarter is 125 pounds. The cumulative removal of VOCs is estimated at over 4700 pounds from September 1986 through June 1992.

Board staff attended a meeting of the Lakewood Village Homeowners Association in July to discuss the recent sample results from shallow monitor wells in the area north of Highway 101. The primary concern was potential impact on

ground water supplies. The possibility of the need to locate a treatment system in the neighborhood and the importance of notifying Board staff of any backyard wells were also discussed.

The California Department of Health Services, Environmental Health Investigation Branch (DHS/EHIB) completed additional indoor air sampling at the San Miguel School in October to clarify the inconclusive results previously reported. DHS/EHIB presented the results of this sampling event to a work group in December. The results are very similar to the previous results, with all target compounds detected at or below national averages for indoor air. The major difference is that some chemicals are present at levels higher than at the control site and did not equalize to outdoor ambient concentrations with active ventilation. Therefore, it now appears that there may be an indoor source for TCE. This source has not been isolated and the ground water contamination may have some contribution. However, the concentrations are not at levels that represent a significant health risk. Based on these results it is unlikely that DHS/EHIB will complete additional sampling.

REGULATORY EVENTS: OCTOBER THROUGH DECEMBER 1992

Signetics submitted an application for renewal of the NPDES permit for the Main Campus facility treatment system.

PROJECTED EVENTS: JANUARY THROUGH JUNE 1993

AMD will submit a report in January proposing some modifications to the onsite extraction system. It is probable that DHS/EHIB will release an addendum to the health assessment for the offsite area during the first quarter. This will include their interpretation of the data comparing San Miguel School and a control site and indoor and outdoor air sources. Soil flux samples will be collected in late February 1993. If the results are similar to previous "winter" sampling, it is probable that Board staff will recommend that this be the last round of required soil flux monitoring.

UNRESOLVED ISSUES:

The law suit filed by residents of the offsite area against the dischargers is still pending. However,

Task E2 - Site Oversight (cont.)

it has been decided by the presiding court that the suit can not proceed as a class action. The impact of this decision is still uncertain. Whether ground water extraction will be required in the area north of Highway 101 is still to be determined. A revised Health Assessment will be completed by DHS/EHIB during the first quarter of 1993 incorporating the outcome of the indoor air sampling at the San Miguel School. It is probable, that this will result in a revised categorization of the health risk in the offsite area for the ATSDR Health Assessment.

**ADVANCED MICRO DEVICES,
BUILDING 915,
915 DEGUIGNE DRIVE, SUNNYVALE**

ACTIVITIES: OCTOBER THROUGH DECEMBER 1992

The quarterly monitoring report was submitted in December 1993. The data collection for this period was completed in early October 1993. Water levels in the A water-bearing zone showed no clear trend. Water levels in the B1 and B2 water-bearing zones increased as compared to the previous quarter. The majority of A-zone wells (7 of 13) were dry at the time quarterly samples were collected.

Operation of the extraction system continued throughout the quarter, though well EW-9, the new B2 extraction well did not have a pump installed at the time of the monitoring event. Ground water extraction from the A aquifer was very limited during this period due to low water levels. The average total extraction rate from eight extraction points was about 61 gpm during this quarter. More than 90% of the water extracted is attributable to extraction from wells completed in the B1 and B2 zones. Since some wells are completed in multiple water-bearing zones, it cannot be determined what portion of the remaining 10% of extracted water is being produced from the A-zone; however, it is probable that it is less than 1% of the total.

Estimates of contaminants removed from the site by the ground water extraction system have been updated through the third quarter of 1992. The estimate of total of VOCs removed since 1984 by ground water extraction is 3701 pounds with 35 pounds removed during the second quarter. This is a slight increase in removal rate from the second quarter (28 pounds).

TCE concentration has declined in the B2 aquifer compared to the previous quarter results. This may be a result of increased pumping from B2 aquifer extraction wells. Selected wells were also analyzed for Title 22 metals. No samples detected title 22 metals above applicable standards.

A report documenting the evaluation of the extraction system in the B-2 zone and the installation of an additional B-2 extraction well was submitted in early January 1993.

The treatment system was in compliance with NPDES requirements during the fourth quarter.

REGULATORY EVENTS: OCTOBER THROUGH DECEMBER 1992

A modification of the site sample and analysis plan was approved in December.

PROJECTED EVENTS: JANUARY THROUGH JUNE 1993

Quarterly reports documenting progress will be submitted throughout 1993. The impact of upgradient sources on the AMD 915 system will continue to be monitored. Documentation of the effectiveness of the additional extraction well will be included in each quarterly report in 1993.

UNRESOLVED ISSUES:

Evaluation of the effectiveness of the modifications to the B2 aquifer extraction system.

**APPLIED MATERIALS, INC.
3050 BOWERS AVENUE, SANTA CLARA**

SITE ACTIVITY/ACCOMPLISHMENTS

1. Monthly reports (NPDES) are being submitted as required.
 - a. At the close of the previous quarter analytical results indicated that the effluent from the air stripper exceeded the discharge limit. The treatment unit was cleaned and the effluent was resampled on October 1. Results, as reported, confirmed that the effluent was once again in compliance and the air stripper was put back into operation on October 5, 1992.

Task E2 - Site Oversight (cont.)

- b. Analytical results for October and November showed that the effluent met discharge limits. The results for the December sampling event are not yet available.
2. Applied Materials and its Consultant met with Board staff and the EPA (Patti Collins) on December 9 to discuss the status of site activities.
3. Applied Materials will provide an update for the Administrative Record, following receipt of input from the Board.
4. Applied Materials has very recently submitted suggested changes to the staff Draft review comments on the report of the recent soil investigation.

AGENCY (BOARD) ACTIVITY/EVENTS

1. Staff reviewed each monthly report as received and commented if and as appropriate.
2. Staff completed a review of the soil-investigation report submitted by Applied Materials and compiled review comments which have been designated Draft comments.
3. Board staff with Jim Hanson and Patti Collins at the EPA office in San Francisco in December for a discussion of the status of site activities.
4. Staff responded to a request from EPA Region IX for information concerning the possible presence of DNAPL at the Applied Materials Building 1 site.
5. Staff has begun a file review to compile information for the Administrative Record.
6. Board Staff and Patti Collins (EPA) met with Applied Materials and its Consultant on December 9 to discuss the status of site remediation and the recently submitted technical report. EPA reiterated its request for a report on the vadose zone soils and provided details of what should be included in the report. This is a prerequisite to finalizing the ROD. This report is to be submitted by mid-January.

Two items to be addressed by Applied Materials, to satisfy Board immediate concerns, are: (1) offsite pollution migration under Bowers Avenue onto the Avantek site, and (2) optimization of ground water extraction.

Board staff said that we would try to get Order modifications on the Board agenda for March, 1993. This will require a public meeting.

7. Staff has received Applied Materials' suggested changes to the Draft comments on the soil-investigation report and will review these as soon as possible.

FUTURE ACTIVITIES

During the next quarter (January-March 1993) staff expects Applied Materials to submit a vadose zone soil report, routine monthly NPDES permit reports, and the periodic monitoring report for October 1992 - January 1993. Staff anticipates finalizing review comments for the soil-investigation report, making a site inspection, and preparing Order modifications for Board consideration at the March meeting. Staff will compile material for the Administrative record as time allows. It is also anticipated that EPA will finalize the ROD late spring.

CTS PRINTEX, 1905, 1911, 1921, AND 1931 PLYMOUTH STREET, MOUNTAIN VIEW

CURRENT STATUS:

On July 28, 1992, well 39W was installed at the intersection of Colony and Sierra Vista on a private vacant lot (slightly up and cross gradient of the site). Regional Board staff observed the well installation and walked the perimeter of the CTS site. In a telephone call on September 25, Aqua Terra confirmed that the results of ground water sampling of the new well detected TCE at 39 ppb, and 1,1-DCA below MCLs. The report was submitted to Regional Board office on November 4, 1992. Earlier Hydropunch data showed 47 ppb TCE at the same location. Regional Board staff may need to investigate upgradient TCE sources, but has not yet pursued that course of action.

Ground water extraction systems continued operation and a report made by telephone for the fourth quarter 1992 ground water monitoring

Task E2 - Site Oversight (cont.)

indicated there was no significant change in the water table from the previous quarter. Chemical concentrations also showed no appreciable changes from the previous quarter. The ground water status and annual report is due October 15, 1992.

PROJECTED ACTIVITIES FOR NEXT SIX MONTHS:

Regional Board staff will develop strategy for investigating possible upgradient sources.

FAIRCHILD, SAN JOSE

CURRENT STATUS:

The final Remedial Action Plan (RAP) was adopted by the Regional Board in January 1989. The RAP set cleanup standards for on-site ground waters at MCLs and for off-site ground waters at less than one fourth the MCLs. In order to help meet these cleanup standards, soil cleanup goals were set for the on-site area, which is surrounded by a slurry wall. The Regional Board amended the RAP in May 1990 in response to soil-cleanup issues raised during an appeal. This modification allowed Fairchild to demonstrate that its prior soil cleanup was sufficient to protect ground water. Fairchild would return water to the on-site aquifers and see whether chemicals remaining in the soil leached out. RAP modifications do not change the ground water cleanup standards, but rather the methods used to achieve those standards.

Fairchild proposed three further modifications to its remedial program in September 1991: (i) a new on-site extraction well, (ii) cyclic ground water pumping on-site (one month on, two months off), and (iii) a one-year shut-down of the off-site extraction wells. Board staff approved all three. The first two modifications, implemented in late 1991, are intended to enhance the efficiency of the on-site remedial actions. The third modification, implemented in December 1991, is based on computer modeling which shows that ground water pumping is ineffective in speeding up remediation of the aquifers at this site. This model predicts that off-site cleanup will take 15 years, whether or not off-site pumping occurs.

During the last quarter, Fairchild operated the on-site extraction system for one month (October), discharging the treated ground water

to the storm drain. Pumping rates averaged 54 gpm in October, with a total of 1.7 million gallons of ground water and 26 pounds of VOCs removed. This is consistent with the cyclic pumping plan cited above. On-site ground water data suggest that VOC concentrations are declining but that cleanup goals are still exceeded in the area near the former underground tank. The off-site extraction wells were shut down as part of the approved one-year demonstration project, which ended in December. In late December, Fairchild requested permission to continue the no-pumping program pending its submittal of a report on the one-year project. Board staff approved the request, based on 1992 monitoring results which show no spread of off-site contaminants and no trend of increasing VOC concentrations off-site.

FUTURE ACTIVITIES:

During the next six months, Fairchild will continue its cyclic pumping program on-site (final report on this program due in January 1994). Fairchild will submit a written report on the off-site demonstration project in mid-February. Board staff will review the February report and decide whether to extend the no-pumping period. The 5-year review for this site is due January 1994.

HEWLETT-PACKARD, 640 PAGE MILL ROAD, PALO ALTO

CURRENT STATUS:

An RI/FS was submitted on April 1, 1991 for on-site and off-site in the California, Olive and Emerson Streets (COE) area. The RI/FS was considered not complete due to the discovery of a more complex hydrogeologic environment than first predicted. Additional data that was required to resubmit the RI/FS has been gathered in the area east of Matadero Creek.

On-site excavation of contaminated soils needed for construction and demolition of old structures has been completed. Twelve off-site and on-site ground water extraction wells have been installed as part of the Interim Remedial Measure program at the site. These wells will be connected to a treatment system that is currently being designed. The final Baseline Public Health Evaluation was completed in September 1992 by Clement International under contract to EPA for the on- and off-site areas.

FUTURE ACTIVITIES

The outline of the revised RI/FS is currently being put together. The first draft of the revised RI/FS will not be completed until at least June 1993. Additional ground water extraction wells above what has been approved will be required in the future. The off-site area will soon be modeled to aid in design of the site-wide remediation system. Construction of the foundation of the new building has been stalled because of the weather. Once construction begins, vapor extraction wells will be placed beneath the building to cleanup residual contamination.

HEWLETT-PACKARD, 1501 PAGE MILL ROAD, PALO ALTO

CURRENT STATUS:

Site Cleanup Requirements were adopted in June 1991 establishing RI/FS tasks and schedules. The RI/FS was originally due in June of 1991. However, due to the discoveries of additional chemical plumes and due to the need for further definition of the known plumes, this date has been informally extended by Board staff. HP submitted a revised RI in April, 1992. Board staff have reviewed the RI, and made comments to HP in December. Board staff are waiting for a response to those comments.

The site currently has six interim remedial measure extraction wells in operation. The most recent three wells help capture the area of the northwest TCE plume with the highest chemical concentrations. The full extent of this plume off-site is not fully known at this time.

Definition of the various chemical plumes on-site is fairly well understood but some additional work needs to be completed to fill in data gaps. Additional work has been done to investigate the source of the plume on the south side of the 1501 buildings. Preliminary data indicates that the source for the south side may be the same as the source for the northwest area.

The Feasibility Study was submitted in June 1992 and is currently under review. The Baseline Public Health Evaluation has been commented on by Clement International, Board staff and members of the community and is currently being revised by HP.

FUTURE ACTIVITIES

Hewlett-Packard is scheduled to finalize the Baseline Public Health Evaluation. A response from HP to Board staff comments on the RI will be expected in the coming months. Board staff will comment on the FS soon. Additional off-site work in the northwest area has been stalled due to access problems but will continue during this next quarter. This off-site data will help define the outer extent of the northwest area plume. On-site work will consist of gathering more ground water samples from areas where the extent of the contamination needs to be confirmed.

HEXCEL MANUFACTURING PLANT AND ABANDONED DISPOSAL SITE, LIVERMORE

DISCHARGER ACTIVITIES FOR THE FOURTH QUARTER, 1992

Hexcel conducted additional offsite ground water sampling for barium at Intel and Calco Lumber properties downgradient of the ADS and HMP OUs. This additional sampling was in response to EPA's request to "close" the barium isoconcentration contours for the shallow aquifer. The information derived from the offsite sources will be included in the risk assessment for the ground water exposure models. Preliminary results indicates that the barium (< 1ppm) may be a regional phenomena. Hexcel has continued to solicit (Since May 1992) an agreement with the Union Pacific RR to gain access to railroad property to complete their methane soil gas evaluation related to the ADS OU RI.

Hexcel will also conduct *in situ* ground water testing north of the HMP to complete downgradient chemical isoconcentration contours of low level VOCs. This is additional sampling to complete the risk assessment being performed by EPA. Hexcel is attempting to gain access to the railroad right-of-way to conduct the sampling, but has suffered delays since October.

BOARD STAFF ACTIVITIES FOR THE FOURTH QUARTER, 1992

Staff commented on the proposed sampling and analysis plan for the additional downgradient plume studies for VOCs and barium requested by EPA risk assessors. The ground water sampling in offsite wells coincided with ground water sampling at the two Hexcel OUs. It was

Task E2 - Site Oversight (cont.)

anticipated that the *in situ* sampling would also coincide with the monitoring well sampling but completing an access agreement between Hexcel and the railroad was unsuccessful at the time of sampling.

Staff commented on the draft Risk Assessment performed by EPA. Comments on the report were mainly related to historical facts in the record. Staff received from Hexcel a report discussing the manufacture of high explosives and chemical stability data on pentaerythritol tetranitrate (PETN), a compound reported to have been used onsite in the late 1960s. Small quantities of PETN were surmised to have been used onsite and the likelihood is minor that any PETN remains onsite (at the HMP) or in the ADS.

DISCHARGER ACTIVITIES FOR THE FIRST QUARTER, 1993

Hexcel will continue with the concurrent quarterly ground water monitoring for the manufacturing plant and disposal site. Hexcel hopes to conduct the methane gas monitoring and VOC *in situ* ground water sampling along the railroad right-of-way. Results of these sampling events will be used to complete the data set for EPA's risk assessment.

BOARD STAFF ACTIVITIES FOR THE FIRST QUARTER, 1993

Staff anticipates receiving and commenting upon the final draft risk assessment from the EPA. Staff will be attempting to expedite the access agreement between Hexcel and Union Pacific RR to complete the methane and VOC sampling. Staff will be working with the City of Livermore to find a suitable solution for their proposed North Mines Road extension which crosses over the west boundary of the ADS OU. Though pollutant concentrations are minimal, no roadwork can be initiated until the final risk assessment is completed and the preliminary feasibility study is prepared.

DISCHARGER ACTIVITIES FOR THE SECOND QUARTER, 1993

Hexcel will begin the feasibility study and proposed remedial alternatives, based on the risk assessment, public and agency comments for the two operable units.

BOARD STAFF ACTIVITIES FOR THE SECOND QUARTER, 1993

Staff will be working with the discharger to develop the draft feasibility study and begin working on record of decision for the final remedial actions. It is anticipated that at least one community meeting will take place during this quarter.

INTERNATIONAL BUSINESS MACHINES, SAN JOSE

CURRENT ACTIVITIES:

The final Remedial Action Plan (RAP) was adopted by the Regional Board in October 1988. It set cleanup standards similar to those for Fairchild (San Jose) and included soil vapor extraction (on-site) and continued ground water extraction (on and off-site). IBM's cleanup program is strongly affected by ground water elevations, which vary dramatically depending on rainfall as well as recharge by the Santa Clara Valley Water District.

During the last quarter, IBM continued implementation of the RAP. IBM extracted and treated 85 million gallons of ground water for the quarter, reusing 67 million gallons (or 76%) of this total volume. All on-site extracted ground water was reused, by reinjection, landscape irrigation, or as feed water for industrial use. Most off-site ground water was discharged to Canoas Creek. The soil vapor extraction system continued to be effective, removing 14,400 pounds of VOCs and hydrocarbons from on-site soils during the quarter. Reduced off-site pumping rates do not appear to be allowing further migration of the chemical plume; IBM will submit an evaluation of this one-year demonstration later in 1993.

FUTURE ACTIVITIES:

During the next six months, IBM will continue its cleanup program. Efforts to reuse off-site extracted ground water will be postponed, pending results of the one-year reduction and a determination of the optimal pumping rate. A proposal to re-use IBM's off-site pumpage at the Shea Homes development has been tabled, due to the reduced pumping rate and Shea's time schedule for securing water. A proposal for direct re-use via the Snell pipeline is on hold for

Task E2 - Site Oversight (cont.)

now, due to concerns expressed by state DOHS and the Santa Clara Valley Water District. The 5-year review for IBM's cleanup program is due in October 1993.

INTEL, SANTA CLARA III, SANTA CLARA

CURRENT STATUS

The Final RAP for the site was adopted by the Board in July 1990. Intel submitted a report titled "Cyclic Pumping Demonstration Project, Evaluation and Evaluation Recommendations for Further Actions" in late 1991. Cyclic pumping (also known as pulsed pumping) is believed to be a method for improving ground water remediation efficiencies.

Based on the October 1991 report, a 60-day on/60-day off cycle does not appear to be an efficient substitution for continuous pumping. As a result, after discussions with Board Staff, Intel initiated a 120-day off cycle to determine whether a longer off cycle will allow a greater quantity of VOCs to desorb into the ground water and result in a higher concentration of VOCs in the extracted ground water. The 120-day off cycle began in January 1992 and ended in May 1992, at which time Board staff collected a split sample of the extracted ground water when the extraction well pumps were turned back on. A report on the effectiveness of the 120-day cyclic pumping demonstration project was submitted in lieu of the second quarter monitoring report on July, 31, 1992. This report concluded that the 120-day cyclic pumping cycle was no more efficient than continuous pumping. Board Staff met with Intel to discuss the results of the demonstration project in October 1992. In response to requests by Board Staff, Intel has proposed a new demonstration project involving various cyclic pumping schemes. This new project will start on January 15, 1993.

FUTURE ACTIVITIES:

On-site ground water extraction and treatment as described above continues as part of the final remedial action at the site. Currently, approximately 30,000 gallons per day of ground water is extracted and treated to remove volatile organic chemicals. Board staff will continue to monitor the site and review quarterly reports submitted by Intel.

INTEL MAGNETICS/MICRO STORAGE, SANTA CLARA

CURRENT STATUS:

The Final Remedial Action Plan (RAP) for the site was adopted by the Board in July 1991.

Draft deed restrictions to prohibit the use of the shallow ground water at the site have been submitted by the two property owners. Kim Camp III submitted a revised draft in February 1992. Board staff sent a letter in April 1992 requesting additional modifications of the proposed deed restriction. Kim Camp III submitted another revision in the fourth quarter 1992. The only remaining point of disagreement between Board staff and Kim Camp III is over the wording of the hazardous substances release disclosure statement. Board legal staff is reviewing Kim Camp's most recent revision.

Intel (on behalf of the property owner, 3000 Oakmead Village Drive Ltd.) submitted a revised deed restriction, dated November 7, 1991, for the 3000 Oakmead Village Drive property. Staff transmitted comments to Intel in early March 1992 and additional comments were sent October 1, 1992. Intel's resubmittal of the draft deed restriction is expected during the first quarter of 1993.

FUTURE ACTIVITIES:

In addition to draft deed restriction review, Board staff work scheduled for completion in the next six months includes attempting to find additional information on the chemical use history of possible upgradient pollution sources.

Currently, approximately 11,000 gallons per day of ground water is extracted and treated to remove volatile organic chemicals. Board staff will continue to monitor the site and review quarterly reports submitted by the PRPs.

NATIONAL SEMICONDUCTOR CORPORATION (NSC) & ADVANCED MICRO DEVICES (ARQUES) (formerly Monolithic Memories), SUNNYVALE & SANTA CLARA

CURRENT ACTIVITIES:

At the NSC and AMD sites, work completed and work projected is pursuant to the final Remedial

Action Plan (RAP) adopted by the Board at its September 1991 meeting. The RAP contains compliance tasks and time schedules for the remediation of soil and ground water in Operable Unit 1, which consists of the NSC and AMD facilities and the downgradient commingled plume area.

In the 4th quarter, staff focused on OU2 sites (sites which have contributed to ground water contamination west of the OU1 contaminant plume). Staff have determined that contamination from OU1 (particularly the United Technologies portion of the NSC site) has contributed to the OU2 ground water plume.

National Semiconductor

After requesting revisions to previous drafts of the deed restriction, Regional Board staff accepted the fourth draft submitted in October. The signed deed restriction was also submitted, and will be recorded in the first quarter 1993. The final drafts for the Hewlett Packard and Shahinian Trust sites, which are modeled after the final deed restriction for the NSC property, will be submitted in January and recorded in the first quarter 1993.

Soil vapor extraction commenced in one source area in December 1992. The initial VOC removal rate is approximately 4 pounds per day. In five other source areas, additional soil samples were obtained, vapor extraction wells were installed, and pilot vapor extraction tests were conducted. Preliminary review of information provided in a technical report indicates that the extent of soil contamination in the five source areas has been defined. Design and installation of additional vapor extractions pumps is anticipated in the first quarter of 1993.

In December the Lakeside Drive treatment system commenced operation. Ground water was extracted from wells located near the north edge of the contamination plume, and treated and discharged under NPDES permit. Two days after start-up, the system was shut down because zinc levels exceeded the limit specified in the NPDES permit. Recent Basin Plan amendments provide for higher zinc limits; therefore, permission was granted to continue the discharge pending further study.

In addition to the new Lakeside extraction system, ground water continues to be extracted at the NSC property, and from a network of extraction wells off-site, along Arques Avenue.

There have been no major violations of the NPDES permits. Extraction rates for the fourth quarter 1992 are not yet available; however, during the third quarter, the ground water treatment system extracted approximately 173 gallons per minute, and removed a total of 164 pounds of VOCs.

Advanced Micro Devices - Arques site

During the fourth quarter the soil vapor extraction system was installed. Delays in startup were due to issuance of use and building permits, which were issued in December 1992. Startup of the soil vapor extraction system is anticipated for the first quarter 1993.

Regional Board staff also reviewed the soil excavation workplan and met with AMD representatives. Staff postponed the need for soil excavation of polynuclear aromatics (PNA) contaminated soil until it could be determined whether the soil vapor extraction system (designed primarily to remediate VOC contamination) was effective at remediating the PNA contamination. The vapor extraction system may remediate PNAs through extraction, or indirectly by enhancing biodegradation. In addition, it was decided that PNA cleanup levels may be modified in light of new toxicological data.

Ground water monitoring reports and NPDES monitoring reports for the third quarter of 1992 have been submitted and reviewed. Operational data for the fourth quarter have not yet been submitted. Ground water continues to be extracted from a network of on-site wells and treated. During the third quarter 1992, the system extracted approximately 18 gallons per minute and removed a total of 13.1 pounds of VOCs.

RHONE-POULENC/SANDOZ CROP PROTECTION, EAST PALO ALTO

ACTIVITIES DURING OCTOBER-DECEMBER 1992

Full scale remediation of the Upland OU continued through November. Agency personnel were frequently on-site, observing operations and splitting samples of treated soil with RPI to confirm results and evaluate attainment of cleanup standards. Because of construction delays in the soil treatment process and weather conditions, capping of the front yard area has been postponed until spring or when weather

permits. The front yard area has been graded and covered securely with plastic.

Agencies met with RPI on December 15, 1992 to review and discuss draft responses from RPI on comments submitted by agencies in regard to the Ecological Assessment.

Regional Board staff drafted an amended Tentative Site Cleanup Order revising submittal dates for the Ecological Assessment as well as reports dependent on this report. This Tentative Order was adopted at the October 21, 1992 Board meeting as Order 92-127.

ACTIVITIES ANTICIPATED DURING JANUARY-MARCH 93

The Regional Board staff intend to focus on completing the Ecological Assessment. Untimely response by agencies has stalled the project. Further agency and resultant RP delays could add a year to the schedule. To prevent such delays, staff will be in close contact with all agencies to determine their concerns and see that they are addressed.

SIEMENS/INTERSIL, CUPERTINO

CURRENT STATUS:

The final Remedial Action Plan for this site was adopted by the Regional Board in August 1990, and EPA issued a concurring ROD. The RAP requires additional ground water extraction wells and soil vapor extraction wells. All work needed to implement the RAP has been completed. With the addition of the new wells, Intersil has 7 soil vapor wells and 7 ground water extraction wells; Siemens has 16 soil vapor wells and 18 ground water wells; and offsite there are 3 extraction wells. Additional treatment facilities for ground water and soil vapor have been installed. The final off-site ground water extraction system as proposed in the RAP has been completed.

In April 1992, Siemens/Intersil requested permission to close four deep-aquifer monitoring wells off-site, in order to avoid possible damage due to construction activities. Board staff approved the request on June 4, 1992, given that no VOCs were detected in these wells. Shortly afterward, the City of Santa Clara reported PCE concentrations slightly over drinking water standards in a down-gradient public well. Continued monitoring has confirmed the presence of PCE in the Santa Clara Well #24.

The source is not believed to be Siemens/Intersil. The four deep-aquifer monitoring wells are still in existence, and the Santa Clara Valley Water District anticipates taking over these wells.

During the last quarter, monitoring and remediation continued as required by the RAP. Permission was granted to Siemens to convert a poorly-functioning extraction well into a monitoring well.

Intersil/Siemens has requested to alter their monitoring schedule for the off-site wells. This submittal is currently under review.

FUTURE ACTIVITIES:

Monitoring and remediation will continue. Board staff may assist the City of Santa Clara in investigating potential sources of funding for rehabilitation of the city drinking water well.

SOLVENT SERVICE, SAN JOSE

ACTIVITIES, OCTOBER THROUGH DECEMBER 1992

Operation of the ground water extraction and treatment systems continued throughout the quarter. The steam enhanced vapor extraction system (SIVE) was temporarily removed from operation in the fourth quarter to allow final installation of the cap on the site, in addition to other construction activities on the site.

REGULATORY EVENTS, OCTOBER THROUGH DECEMBER 1992

None

PROJECTED EVENTS, JANUARY THROUGH JUNE 1993

Quarterly monitoring reports will be submitted within thirty days of the end of each calendar quarter. The report submitted at the completion of the fourth quarter will include a yearly summary of site activities and contaminant removal. Site construction activities began in January. Progress has been delayed by the weather and the well destructions scheduled to be completed in the fourth quarter have also been delayed.

Site access agreements should be finalized in January to allow Chevron to install a vapor extraction system to address the free product plume on the SSI western property boundary.

UNRESOLVED ISSUES:

The final status of soil remediation and the long term operation of SIVE must still be resolved. The status of remediation of dissolved phase hydrocarbon, benzene, toluene, xylene and solvents on the western property boundary must be resolved following the completion of free product hydrocarbon from this area. The current status of these contaminants is masked to some degree by the free phase plume.

SYNERTEK #1, SANTA CLARA

CURRENT STATUS:

The Final RAP for the site was adopted by the Board in March 1991. Operation of the B zone ground water reinjection system commenced in December 1991. The reinjection system consists of two extraction wells pumping a combined total of six gallons per minute (gpm) and one reinjection well reinjecting six gpm. The four A zone extraction wells continue to pump at a combined rate of about 12 gpm.

The six month hydraulic control study originally due in August of 1992 has been delayed due to the reinjection system failing and becoming non-operational as a result of calcium carbonate precipitating out of the water and clogging the system. The study was rescheduled for completion in March or April of 1993. Unfortunately, there have been continued problems with clogging, and Honeywell has submitted a request that the reinjection program be discontinued. Board staff will review the request during the first quarter of 1993.

FORECASTED ACTIVITIES:

Ground water extraction and treatment continues as an integral part of the final remedial action at the site. Currently, approximately 26,000 gallons per day of ground water is extracted and treated to remove volatile organic chemicals. Board staff will continue to monitor the site and review quarterly reports submitted by Honeywell.

TELEDYNE AND SPECTRA-PHYSICS, MOUNTAIN VIEW

CURRENT STATUS:

In February of 1991 the Board adopted a final Remedial Action Plan and EPA issued a record of decision. The RAP calls for ground water extraction off-site and at the Teledyne facility.

The RAP also requires additional soil treatment at the Spectra Physics facility.

During the past quarter, on-site work at Teledyne includes the continuation of ground water monitoring, effluent monitoring, extraction and treatment. On-site at Spectra-Physics, soil vapor extraction continued.

Off-site, Teledyne and Spectra-Physics monitor wells and operate extraction systems north and south of the Bayshore Freeway. Additional off-site ground water extraction wells were installed in the northwest corner of the plume to remove contamination that, until May 1991, was removed by the City of Mountain View Landfill ground water extraction system.

Off-site work associated with finalizing the revised Non-Binding Allocation of Responsibility (NBAR) includes activities at four sites. The sites actively pursuing investigations/remediation include Coastside Nursery, Montwood, Santa Clara County Transportation Agency, and Alta. The Space Park Way site is the only site that requires initial investigation. The Regional Board is requiring the investigation and remediation at these sites.

The owners of the Alta site submitted a Phase III Site Characterization Report in September 1992. This investigation found some elevated VOC concentrations, and the owners must further define and capture contaminants in the northern contamination area. Additional investigation is needed off-site, and access is being negotiated.

The owners of the former Coastside Nursery property submitted results of a ground water investigation. This is currently under review.

Initial Site Cleanup Requirements will be issued in January 1993 to the previous owners of the former Montwood site.

Quarterly ground water monitoring continues at the Santa Clara County Transportation Agency, North Coach Division, and ground water remediation began in October 1992.

FUTURE ACTIVITIES

The NBAR process will continue as each of the downgradient PRPs perform individual site investigations. Regional Board staff may use enforcement orders to require some investigations. It is expected that site

investigations will start at another site (Space Park Way). The Montwood site is expected to further characterize and sample the area downgradient of their site. The ground water cleanup zone comprising the North Bayshore Extraction System will be reevaluated because of the installation of extraction wells in the northwest corner of the plume and the shut-down of the ground water extraction trench at the City of Mountain View Landfill. A preventative maintenance program will begin for Teledyne/Spectra-Physics extraction wells/pumps.

VAN WATERS & ROGERS, INC, SAN JOSE

CURRENT STATUS:

On October 12, 1992, VW&R submitted the Final Designs for the Expanded Ground water Treatment System and In-Situ Vapor Extraction System. In a letter on January 6, 1993, Regional Board Executive Officer approved of the plans. Pursuant to Order 91-138, the implementation of these systems must be reported on no later than 180 days from the date of approval. Van Waters noted that the estimated time frame to implementation would take four to six weeks to get local agency approval, three months to obtain equipment, and two to three months to construct.

The third quarter 1992 ground water status report was received by telephone. No appreciable changes were noted in chemical concentrations. An increase in the water table was noted in the A and B aquifers, except near the extraction wells.

PROJECTED ACTIVITIES FOR NEXT SIX MONTHS:

- 1) Implementation of the ISVE and GW Extraction systems will be required within 180 days of approval of the final design (expected June 1993).
- 2) Regional Board NPDES site inspection scheduled for February 4, 1993.

CALIFORNIA EPA - DEPARTMENT OF TOXICS SUBSTANCES CONTROL LEAD SITE:

LIQUID GOLD, RICHMOND

CURRENT STATUS:

On October 16, 1992 agencies met with the RP (Southern Pacific) to discuss the comments on the draft Feasibility Study Report. Several revisions were agreed to and made, and on November 16, 1992 SP submitted the Final FS. In a letter of December 1, 1992 DTSC approved of the Final FS document. DTSC has requested that a draft RAP be submitted by January 15, 1993. However, SP has responded by saying they cannot meet this deadline.

Based on a telephone report of ground water data for this quarter, no significant changes have occurred in water table elevation or chemical concentrations. The ground water status report is due January 15, 1992.

PROJECTED ACTIVITIES FOR NEXT SIX MONTHS:

The draft RAP is due January 15, 1993. Extensive review is expected.

JASCO, MOUNTAIN VIEW

CURRENT STATUS:

EPA approved Jasco's RI/FS and treatability study in May 1992 and issued a proposed cleanup plan in early June 1992. The plan calls for expanded ground water extraction, treatment prior to POTW discharger, deed restriction prohibiting wells in shallow ground water, and ex-situ bioremediation of soils. EPA issued the ROD for this site in late September, making essentially no changes in the proposed cleanup plan.

During the last quarter, cleanup activities continued at this site, including interim ground water extraction with POTW discharge. EPA issued an administrative order for Remedial Design/Remedial Action, including a scope of work, in early December. The City of Mountain View gave Jasco a one-year extension on its industrial-use abatement deadline; Jasco must cease industrial use of the site in 1995.

FUTURE ACTIVITIES:

During the next six months, Jasco will begin RD/RA tasks. Jasco will submit an RD/RA workplan in late January. The workplan will reflect the fact that Jasco's site will probably be redeveloped for residential use within the next several years. In January, Regional Board staff will rescind a 1987 enforcement order now moot as a result of EPA's recent administrative order.

LORENTZ BARREL AND DRUM, SAN JOSE

ACTIVITIES: OCTOBER THROUGH DECEMBER 1992

The discharger submitted the second NPDES compliance monitoring and shallow ground water monitoring reports during December. The site was in compliance with NPDES requirements. Board staff reviewed the ground water monitoring report. Since comments were minimal, Board staff provided comments verbally to EPA staff.

Installation of a C-zone monitor well intended to serve as an early warning for the San Jose State supply wells and to evaluate the potential ground water gradient in the vicinity of the San Jose well was installed in the fourth quarter. Board staff discussed installation and sampling concerns with

this well. These concerns were related to a high volume of off-gassing from the well.

REGULATORY EVENTS: OCTOBER THROUGH DECEMBER 1992

None

PROJECTED EVENTS: JANUARY THROUGH JUNE 1993

Quarterly NPDES and ground water monitoring reports will be submitted throughout the next year. Some site structures will be removed, possibly during the first quarter and additional soil remedial activity is under consideration.

UNRESOLVED ISSUES

The need for additional investigation or removal of onsite sumps and other possible areas of contaminated soils is still under considered.

MIDDLEFIELD-ELLIS-WHISMAN SITES, MOUNTAIN VIEW

CURRENT STATUS:

EPA adopted a cleanup plan for the MEW area in June 1989. In mid-1991, EPA and two of the companies - Intel and Raytheon - signed a consent decree covering implementation of final cleanup activities; it received court approval in April 1992. EPA issued a unilateral enforcement order to Fairchild and several minor dischargers in November 1990. Fairchild challenged EPA's ROD revision (which changed cleanup goals to standards) and other aspects of the negotiation process. A federal court dismissed the challenge, but Fairchild is appealing the decision. Various responsible parties at the site are submitting RD/RA reports in response to the unilateral order or the consent decree. Design work for the remedial measures is in progress.

During the last quarter, the companies' consultant continued efforts to the destruction of potential conduits (abandoned wells). EPA and the Navy continued coordination efforts over investigation and cleanup activities at Moffett Field, which affects off-site cleanup efforts by the MEW companies. Coordinated monitoring-well

sampling in the entire plume area occurred this quarter.

FUTURE ACTIVITIES:

During the next six months, the companies will continue RD/RA tasks, including submittal of preliminary and final design reports for individual site remediation. In March, they will submit a plume definition report and a preliminary design for a regional remediation system. Design of a reuse project will happen after individual and regional system designs are completed (i.e. once extracted ground water points and volumes are known).

NAVAL AIR STATION, MOFFETT FIELD (DOD FACILITY / EPA LEAD)

As of March 1, 1992, oversight responsibility for this site was transferred to another Regional Board division, which will be reporting through the Department of Defense federal facilities agreement (FFA).

UNITED HECKATHORN, (aka: LEVIN METALS), RICHMOND

CURRENT STATUS:

Although previous work by USEPA involved major removal efforts of DDT-contaminated soils, recently the PRPs for United Heckathorn have been sampling the remaining localized areas of contamination on the upland portions of the site to identify any remaining contaminants.

On October 15, 1992 USEPA distributed a draft workplan to complete the RI/FS on the marine sediments at the site. The workplan, prepared by USEPA's contractor, Batelle, proposed a number of tasks to define the extent of contamination in the sediments. This includes a number of vertical and horizontal sediment cores throughout Richmond Harbor (supplemented by previous, less intensive sampling done by Levine-Fricke for the PRPs, and the Corps of Engineers for dredging projects). Chemical analysis other than chlorinated pesticides includes screening of some samples for PCBs, metals, PAHs, tributyltin, petroleum hydrocarbons. Additionally, TOC, grain size, and moisture content will be analyzed. Some supplemental bioassay work will be done, and sediment transport modelling was proposed. However, based on agencies' comments, the transport modelling was withdrawn, with an increased number of sediment samples at bank "edges" and eddy areas of the canals.

The long-awaited results of the benthic studies originally performed by USEPA's Newport, Oregon research lab in Fall of 1991 is expected in February 1993. This report will recommend cleanup levels for sediments at the site based on the ecological assessment.

PROJECTED ACTIVITIES FOR SIX MONTHS:

Field work for the Marine RI/FS. Completed report is expected in Fall 1993

WESTINGHOUSE, SUNNYVALE

CURRENT STATUS:

The Record of Decision for this EPA lead site was signed on October 16, 1991. EPA reached agreement with Westinghouse to start remedial design in February 1992.

EPA and Westinghouse have failed to reach agreement for a Consent Decree for final remedial action. Instead, EPA will issue a unilateral order that compels Westinghouse to perform the full-scale cleanup plan currently in design. Based on the final remedial design workplan, design continued this quarter and remained on schedule. Field investigation, including installation and sampling of on-site and off-site monitoring wells, was completed during the third quarter. Soil excavation design will be completed during the fourth quarter 1992.

Westinghouse had intended to file an NPDES permit application during the third quarter for the discharge of treated, extracted ground water. However, while preparing this application, it was discovered that no storm sewer connection currently exists in the area of the proposed pilot treatment system. Thus, completion of the application will be delayed while Westinghouse and the City of Sunnyvale resolve this issue. In the meantime, no delay in pilot system startup is expected, since the initial discharge will go to the sanitary sewer.

FUTURE ACTIVITIES:

Additional field activities continue at the site. These activities include: monthly water level measurements, biweekly removal of sinking and floating non-aqueous product, and quarterly ground water sampling.

**DATA VALIDATION
(INTERAGENCY AGREEMENT W/CSDHS)**

The data validation agreement calls for the California Department of Health Services (DHS) to conduct data validation on analytical data from selected ground water samples for eighteen Superfund sites. To date, DHS has reviewed 36 data validation packages from MSCA sites (most sites have undergone at least two rounds of data validation).

As the data validation agreement expired at the end of the first quarter 1992, Board staff, over the coming six months, will consider the need to extend the agreement.

**BASELINE PUBLIC HEALTH EVALUATION
CONTRACT (W/ICF CLEMENT)**

The BPHE contract with ICF Clement expires in March 1993 and the Board can not renew it. It is not expected that the Board will seek another BPHE contract in this Phase.

TECHNICAL ASSISTANCE CONTRACT

The Regional Board is reconsidering whether to contract for technical assistance for the remainder of the MSCA due to the significant State overhead necessary to implement a contract, the value of the assistance gained, and the availability of qualified staff.

SUPERFUND LABORATORY CONTRACT

Pacific Environmental Laboratories (PEL) was the winning bidder for a Superfund Lab contract that runs from January 1, 1992 to June 30, 1993. The contract budget of \$65,000 allows Board staff to submit split samples of ground water and soils to PEL as a check on PRP generated data.

Costs

Work on this MSCA task is budgeted by MSCA site. See the Table on page III-6 for overall grant budget status that includes Site Oversight.